

REMARKS

By this amendment, Applicants have amended Figures 2 and 8 of the drawings, paragraphs 28, 35, 36, 47, and 51 of the specification, and claims 5, 6, 7, and 37. Claims 1 – 39 are pending in the application. Applicants request reconsideration of the claims in view of the foregoing amendments and the following remarks

Objections to the Drawings

The Office Action objects to the drawings as failing to comply with 37 C.F.R. § 1.84(b)(4) because reference characters 515 and 215 have both been used to designate the package in Figure 4. Office Action, item 1 at page 2. Applicants respectfully submit that the amendment to paragraph 28 obviates the grounds for the objection. Applicants respectfully request that the objections to the drawings under 37 C.F.R. § 1.84(b)(4) be withdrawn.

The Office Action objects to the drawings as failing to comply with 37 C.F.R. § 1.84(b)(5) because reference designators 210, 771, and 792 are shown in the drawings but not mentioned in the description. Office Action, item 2 at page 2. Applicants respectfully submit that amendments to Figure 2, paragraph 35, and paragraph 36 obviate the grounds for the objection. With specific reference to Figure 2, Applicants have deleted reference designator 210. Applicants respectfully request that objections to the drawings under 37 C.F.R. § 1.84(b)(5) be withdrawn.

The Office Action objects to the drawings under 37 C.F.R. 1.83(a) for failure to show a “reflectance chamber.” Office Action, item 3 at page 2. Applicants make the assumption that

the Office Action refers to the feature of a reflective chamber. Applicants respectfully submit that amendments to Figure 8, paragraph 47, and paragraph 51 have obviated the grounds for the objection. With specific reference to Figure 8, Applicants have added the optional feature of a reflective chamber 1501 that was described in paragraph 51 of the Specification and claims 10 and 22 of the application as filed. Thus, the addition of reference number 1501 to Figure 8 does not constitute the addition of new matter since this feature was already described in the specification as originally filed. Applicants respectfully request that the objection under 37 C.F.R. § 1.83(a) be withdrawn.

Claim Objections Under 37 C.F.R. § 1.75(c)

The Office Action objects to claims 5 – 7 and 37 under 37 C.F.R. § 1.75(c) as being of improper dependent form. Office Action, item 4 at page 2. Applicants respectfully submit that amendments to claims 5 – 7 and 37 have obviated the grounds for the objection. Applicants respectfully request the objection under 37 C.F.R. § 1.75(c) be withdrawn.

Claim Rejections Under 35 U.S.C. § 102

The Office Action rejects claims 1, 2, 8, 13 – 19, 28 – 30, 33, and 39 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,210,590 to Landa, et al. (Landa). Office Action, item 6 at page 3. Applicants respectfully traverse for at least the reason that Landa fails to disclose all recited features.

In each of independent claims 1, 28 and 39, Applicants recite the feature of a light energy aggregator. The Office Action asserts that the feature of a light energy aggregator is disclosed in

Landa as feature 130. However, in Landa, feature 130 is described as “multiplexer 130”.

Similarly, Landa discloses that “openings 139 are arranged on chopping disc 132 such that only one of openings 139 may align with an opening pair 137, 138 at a time. Disc 132 will block light transmission between all other pairs 137, 138.” Landa at column 6, lines 15 – 19. Landa also discloses that “in this manner, MUX 130 will allow only one of fiber bundles 162 or fiber bundle 160(8) (connected to input disc 131) to transmit light to a corresponding fiber bundle 164 (connected to output disc 133).”(emphasis added) Landa at column 6, lines 35-38.

To aggregate, on the other hand, means to gather or collect into a whole. *See, e.g.,* WEBSTER’S II NEW COLLEGE DICTIONARY (1999)(Appendix A); MERRIAM WEBSTER’S COLLEGIATE DICTIONARY (10th ed., 1996)(Appendix B). It is axiomatic that the selective operation of multiplexer 130 disclosed in Landa does not teach or suggest the collective function of an aggregator claimed by applicants. Thus, independent claims 1, 28, and 39 are patentable for at least the reason that Landa fails to disclose the feature of an “aggregator,” in combination with other recited features.

Dependent claims 2, 8, and 13 – 19 are patentable for at least the reason that they depend from allowable claim 1. Dependent claims 29 – 30 and 33 are patentable for at least the reason that they depend from patentable claim 28. Applicants respectfully request that the rejection to claims 1, 2, 8, 13 – 19, 28 – 30, 33, and 39 under 35 U.S.C. § 102(b) be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

The Office Action rejects claims 5 – 7 under 35 U.S.C. § 103(a) as being unpatentable over Landa in view of prior art disclosed in Applicants' specification. Applicants respectfully traverse for at least the reason that the applied references fail to disclose all recited features in the claims.

With respect to independent claim 1, and as indicated in discussing the rejections under 35 U.S.C. § 102 above, Landa fails to disclose at least the feature of a light energy aggregator. Nor does Applicants' specification indicate that light energy aggregators were previously known. Therefore, Applicants respectfully submit that claims 5 – 7 are patentable for at least the reason that they depend from patentable claim 1.

With further regard to claims 5 and 6, Applicants respectfully submit that the background section of Applicant's specification does not disclose "two sample probes configured to substantially align with a corresponding plurality of items to be inspected," in combination with other features, as recited in claim 5. Nor does the background section of Applicant's specification disclose a system having "a separate probe for each item to be inspected," in combination with other features, as recited in claim 6. Instead, the background section of Applicant's specification teaches away from the claimed system by disclosing that "a conventional spectrometer can only look at and analyze one sample at a time." *See* paragraph [0036] in Applicant's specification. With further regard to claim 7, neither Landa nor the background section of Applicants' specification discloses a "conveyor," in combination with other features, as recited in amended claim 7.

For at least the foregoing reasons, Applicants respectfully request that the rejection to claims 5 – 7 under 35 U.S.C. § 103(a) be withdrawn.

The Office Action rejects claims 3, 4, 9 – 12, 20 – 27, 31, 32, and 34 – 38 under 35 U.S.C. § 103(a) as being unpatentable over Landa in view of U.S. Patent No. 5,793,486 to Gordon, et al. (Gordon). Office Action, item 10 at page 5. Applicants traverse for at least the reason that the applied references, either separately or combined, fail to disclose all recited features of the claims.

The Office Action asserts that a light energy aggregator is disclosed in Gordon as beam splitter 40 and/or multi-faceted mirror 58. Applicants respectfully submit that splitter 40 does not function to aggregate energy. Instead, the purpose of splitter 40 is to tailor the spectral distribution of the combined beam for “the right balance of ultraviolet wavelengths to visible wavelengths.” See Gordon at column 7, lines 46-50. Nor is multi-faceted mirror 58 of Gordon an energy aggregator. Instead, the multi-faceted mirror 58 receives a single beam from mirror 56 and reflects the single beam multiple times to provide even illumination on a sample. Gordon, column 7, line 55 to column 8, line 27.

Accordingly, for at least the reason that Landa and Gordon fail to disclose a “light energy aggregator” as recited in independent claims 1, 20, 24 and 28, Applicants submit that claims 1, 20, 24 and 28 are patentable. Claims 3, 4 and 9 – 12 are patentable for at least the reason that they depend from patentable claim 1. Claims 21-23 are patentable for at least the reason that they depend from patentable claim 20. Claims 25-27 are patentable for at least the reason that

they depend from patentable claim 24. Claims 31 and 32 are patentable for at least the reason that they depend from patentable claim 28.

With further regard to claims 3, 4 and 24-27, even if splitter 40 and/or multi-faceted mirror 58 in Gordon is a light energy aggregator (and Applicants do not believe that they are), Gordon does not disclose that the light aggregator operates “based on light energy obtained from the at least two sample probes,” in combination with other features, as recited in claim 3. Nor does Gordon disclose a method “combining reflected light signals [from each of a plurality of items in a package]” as recited in claim 24. Instead, Gordon discloses that the inputs to splitter 40 are “UV and visible light beams from sources 22 and 42.” Gordon at column 7, lines 43-46. Gordon further discloses that the input to multi-faceted mirror 58 is the combined beam 54, reflected from mirror 56. Gordon at column 7, lines 55-63. Thus, at best, Gordon discloses that *light sources used for illumination* are aggregated. Claims 3, 4, and 24 are patentable for at least this additional reason. Claims 25-27 are patentable for the reason that they depend from allowable claim 24.

With further regard to claims 11, 12, and 20-23, even if splitter 40 and/or multi-faceted mirror 58 in Gordon is a light energy aggregator (and Applicants do not believe that they are), Gordon does not disclose that the energy aggregator “receive[s] a plurality of input cables,” or forms “a single output cable” as recited in claim 11. Nor does Gordon disclose a light aggregator that is “adapted to bundle a plurality of fiber optic cables,” in combination with other features, as recited in claim 12. Nor does Gordon disclose an aggregator that operates on a “plurality of fiber optic sample probes,” in combination with other features, as recited in claim 20. Instead, Gordon

discloses that both splitter 40 and multi-faceted mirror 58 receive light beams as inputs, and produce light beams as outputs, without directing those beams through fiber optics. *See generally* Gordon at columns 7 and 8. Gordon does disclose the application of fiber optic bundles. But bundles 72 and 76 directly feed spectrometers 78 and 80, respectively, without “aggregation” or any other operation by splitter 40 or multi-faceted mirror 58. Gordon at column 9, lines 17-18. Claims 11, 12, and 20 are patentable for at least this additional reason. Claims 21-23 are allowable for the reason that they depend from claim 20.

With regard to claims 34-38, Gordon does not disclose “combining each of the individual reflectance items,” and combinations thereof, as recited in claim 34. Nor does Gordon disclose “means for combining the reflectance values,” and combinations thereof, as recited in claim 38. Instead, Gordon discloses that reflectance data from sheets of paper are collected by two individual paths: 1) from lens 70, to fiber optic bundle 72, to spectrometer 78; and 2) from lens 74, to fiber optic bundle 76, to spectrometer 80. Gordon column 8 line 61 to column 9, line 18. In other words, Gordon does not disclose combining of reflectance data. Claims 34 and 38 are patentable for at least this reason. Claims 35-37 are patentable for at least the reason that they depend from patentable claim 34.

Applicants respectfully request that the rejections to claims 3, 4, 9 – 12, 20 – 27, 31, 32, and 34 – 38 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION


Applicants respectfully submit that all stated grounds objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants submit that all pending claims are in condition for allowance. The examiner is invited to telephone the undersigned representative if an interview might be useful to place the application in better condition for allowance.

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Enclosures:

Request for Approval of Drawing
Amendments

Appendix A

Appendix B